

What is claimed is:

1. A method for identifying a candidate molecule that modulates a biological activity of a nucleic acid capable of forming a G-quadruplex structure, which comprises:
contacting a test molecule with the nucleic acid, wherein the nucleic acid or a portion thereof is in an intramolecular parallel G-quadruplex conformation; and
determining whether a portion of the test molecule interacts with a site located in the intramolecular parallel G-quadruplex conformation,
whereby a test molecule having a portion that interacts with the site is identified as a candidate molecule that modulates the biological activity of the nucleic acid.
2. The method of claim 1, wherein the test molecule and the nucleic acid is contacted *in silico*.
3. The method of claim 1, wherein the nucleic acid is double-stranded.
4. The method of claim 1, wherein the nucleic acid is 30 or fewer nucleotides in length.
5. The method of claim 1, wherein the nucleic acid comprises a nucleotide sequence located 5' of the *CMYC* gene.
6. The method of claim 5, wherein the nucleic acid comprises the nucleotide sequence TG₄AG₃TG₄AG₃TG₄AAGG.
7. The method of claim 6, wherein the site comprises one or more atoms in a G-tetrad of the G-quadruplex.
8. The method of claim 1, which further comprises determining whether a portion of the test molecule interacts with a site in a secondary structure adjacent to the G-quadruplex.
9. The method of claim 8, wherein the secondary structure adjacent to the G-quadruplex is formed by a nucleotide sequence in a double stranded nucleic acid complementary to the nucleotide sequence that forms the G-quadruplex.

10. The method of claim 1 or 8, wherein a portion of the test molecule also intercalates with a duplex region adjacent to the G-quadruplex.
11. The method of claim 1, wherein the interaction is a hydrogen bond.
12. The method of claim 1, which further comprises determining whether a candidate molecule modulates a biological activity of the nucleic acid.
13. The method of claim 12, wherein the biological activity is an interaction of a protein with the nucleic acid.
14. The method of claim 13, wherein the protein is NM23-H2.
15. The method of claim 13, wherein the interaction is binding of the protein to the nucleic acid.
16. The method of claim 12, wherein the biological activity is DNA transcription.
17. The method of claim 12, wherein one or more nucleotides of the nucleic acid is substituted with a fluorescent nucleotide analog and the biological activity is determined by detecting the fluorescence of the nucleic acid.
18. A method for identifying a therapeutic that reduces cell proliferation in a system, which comprises contacting a system with a candidate molecule identified by the method of claim 1 and determining whether the candidate molecule reduces cell proliferation in the system, whereby a candidate molecule that reduces cell proliferation in the system is identified as the therapeutic.
19. The method of claim 18 wherein the system is a group of cells.
20. The method of claim 18 wherein the system is an animal.
21. A method for stabilizing an intramolecular parallel G-quadruplex conformation of a nucleic acid, which comprises contacting the nucleic acid with a quadruplex-interacting

molecule in the system, whereby the molecule stabilizes the intramolecular parallel G-quadruplex conformation.

22. The method of claim 21, wherein the system is a group of cells.
23. The method of claim 21, wherein the system is an animal.
24. A method for treating a cell proliferative condition in a subject, which comprises administering a candidate compound identified by the method of claim 1 or a therapeutic identified by the method of claim 18 to a subject in need thereof, whereby administering the candidate compound or the therapeutic reduces cell proliferation in the subject.
25. The method of claim 24, wherein the cell proliferative condition is a cancer.
26. The method of claim 25, wherein the cell proliferative condition is colorectal cancer.
27. The method of claim 24, wherein the cell proliferative condition is angiogenesis.